LISTING OF THE CLAIMS

A detailed listing of all claims that are, or were, in the present application, irrespective of whether the claim(s) remains under examination in the application are presented below. The claims are presented in ascending order and each includes one status identifier. Those claims not cancelled or withdrawn but amended by the current amendment utilize the following notations for amendment: 1. deleted matter is shown by strikethrough for six or more characters and double brackets for five or less characters; and 2. added matter is shown by underlining.

1.-19. (Canceled).

20. (Previously Presented) A method for forming an optical fiber preform, the method comprising inserting an insert within a glass preform structure, the insert comprising a coating over a core structure, wherein the coating on the core structure comprises an oxide composition comprising SiO_2, a rare earth element and a dopant comprising a metal element that is not a rare earth element, the core structure being a glass rod, wherein the coating comprises particles having an average primary particle diameter of no more than about 500 nm, the coating having a fully densified mass density, wherein the coating has an average density that is a factor within the range from about 0.02 to about 0.55 of the fully densified mass density, wherein the coating and the core structure have different dopant compositions.

21. - 24. (Canceled)

25. (Previously Presented) The method of claim 20 wherein the particles have an average primary particle diameter of no more than about 100 nm.

26. (Previously Presented) The method of claim 20 wherein the coating is approximately uniformly distributed around the insert.

27. - 30. (Canceled)

31. (Previously Presented) A method for forming an optical fiber preform, the method comprising:

forming an insert comprising a coating on a glass rod in a flowing reactor by placing the glass rod in a product stream of the flowing reactor, wherein the reaction to form the product stream is driven by a light beam intersecting a reactant stream wherein the light beam is directed along an optical path between a reactant inlet nozzle and the insert with a configuration in which the light beam passes through the reactant stream without striking the glass rod, the coating having a fully densified mass density and wherein the coating has an average density that is a factor in the range from about 0.02 to about 0.55 of the fully densified mass density; and

inserting the glass rod with the coating within a glass preform structure, and wherein the coating and the glass rod have different dopant compositions.

32. (Previously Presented) The method of claim 31 wherein the coating comprises particles having an average primary particle diameter less than about a micron.

33. (Previously Presented) The method of claim 31 wherein the coating comprises particles having an average primary particle diameter of no more than about 500 nm.

34. (Previously Presented) The method of claim 31 wherein the coating comprises particles having an average primary particle diameter of no more than about 100 nm.

35. (Previously Presented) The method of claim 31 wherein the coating comprises a rare earth metal.

36. (Previously Presented) The method of claim 31 wherein the insert is rotated when forming the coating.

37. (Previously Presented) The method of claim 31 wherein the coating is approximately uniformly distributed around the insert.

38. (Previously Presented) The method of claim 31 wherein the light beam is generated by a laser.

39. (Previously Presented) The method of claim 20 further comprising forming the coating on the insert in a flowing reactor by placing the insert in a product stream of the flowing reactor.

40. (Canceled)

41. (Previously Presented) The method of claim 20 wherein the average density is a factor from about 0.05 to about 0.40 of the fully densified mass density.

42. (Canceled)

43. (Previously Presented) The method of claim 31 wherein average density is a factor from about 0.05 to about 0.40 of the fully densified mass density.

44. (Previously Presented) The method of claim 39 wherein the flowing reactor comprises a radiation beam intersecting a reactant stream at a reaction zone at which the product stream is generated.

45. (Previously Presented) The method of claim 39 wherein the insert is rotated when forming the coating.

46. (Previously Presented) The method of claim 39 wherein the flowing reactor comprises a reaction chamber and wherein the insert is within the reaction chamber when the insert is placed in the product stream.

47. (Previously Presented) The method of claim 39 wherein the flowing reactor comprises a reaction chamber and wherein the insert is external to the reaction chamber when the insert is placed in the product stream.

48. (Previously Presented) The method of claim 44 wherein the radiation beam is generated by a laser.